

Claims

We Claim:

5

1. A polymer composition comprising
 - (a) a polyester;
 - (b) at least one ultraviolet absorber; and
 - (c) at least one optical brightener in a concentration of greater than10 0.0004 wt%, based on the total weight of the polyester composition;
wherein said polymer is comprised of no more than 5 weight percent of polymers which are other than polyesters;
wherein said composition is effective at screening of at least 85% of the light of wavelengths of 290-390 nm.

15

2. The polymer composition of claim 1, wherein said composition exhibits a CIE b* value of no greater than 6.0 in a 50 micrometer thick film prepared from said composition.

20

3. The composition of claim 1 where the ultraviolet absorber is selected from the group consisting of the benzophenone, benzotriazole, triazine, oxanilide, cyanoacrylate, malonate, formamidine and benzoxazinone classes

25

4. The composition of claim 1 where the optical brightener is selected from the group consisting of the stilbene, coumarin, naphthalene and thiophene classes.

30

5. The composition of claim 3 where the ultraviolet absorbers are selected from the benzophenone, benzotriazole and triazine classes.

6. The composition of claim 4 where the brighteners contain a benzoxazole functionality.

5 7. The composition of claim 6 where the brighteners are benzoxazolyl-stilbenes.

8. The composition of claim 6 where at least one of the brighteners is 4,4'-bis(2-benzoxazolyl)stilbene.

10

9. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.1 to 4.0 weight percent and the optical brightener is present in a concentration of 0.5 to 0.6 weight percent.

15 10. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.1 to 4 weight percent and the optical brightener is present in a concentration of 0.05 to 0.6 weight percent.

11. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.4 to 2 weight percent and the optical brightener is present in a concentration of 0.1 to 0.3 weight percent.

20

12. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.01 to 0.8 weight percent and the optical brightener is present in a concentration of 0.005 to 0.08 weight percent.

25

13. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.05 to 0.2 weight percent and the optical brightener is present in a concentration of 0.1 to 0.03 weight percent.

30

14. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.001 to 0.08 weight percent and the optical brightener is present in a concentration of 0.0005 to 0.01 weight percent.

5 15. The composition of claim 1, wherein the ultraviolet light absorber is present in a concentration of 0.004 to 0.04 weight percent and the optical brightener is present in a concentration of 0.0005 to 0.006 weight percent.

10 16. The composition of claim 1, further comprising 0.2 to 15 weight percent of titanium dioxide having a mean particle size of less than or equal to 0.1 microns.

15 17. A shaped or formed article comprising the polyester composition of claim 1.

 18. The article of claim 17, further comprising 0.2 to 15 weight percent of titanium dioxide having a mean particle size of less than or equal to 0.1 microns

20 19. The article of claim 17, wherein the polyester composition is in the form of a film.

 20. The article of claim 17 wherein the polyester composition is in the form of a container.

25 21. The article of claim 17, wherein the polyester composition is in the form of a flat or formed sheet.

22. A method for protecting a material susceptible to degradation via ultraviolet light, which comprises surrounding at least part of said material with a polymer composition comprising

(a) a polyester;

5 (b) at least one ultraviolet absorber; and

(c) at least one optical brightener in a concentration of greater than 0.0004 wt%, based on the total weight of the polyester composition;

wherein said polymer is comprised of no more than 5 weight percent of polymers which are other than polyesters;

10 wherein said composition is effective at screening of at least 85% of the light of wavelengths of 290-390 nm.

23. The method of claim 22, wherein said composition exhibits a CIE b* value of no greater than 6.0 in a 50 micrometer thick film prepared from said composition.

24. The method of claim 22, wherein the material is a foodstuff or beverage.

20